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09/538,550

03/29/2000

Andrew Walker

CS1075#SP

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04/02/2007

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EXAMINER

TALBOT, MICHAEL

ART UNIT

PAPER NUMBER

3722

| SHORTENED STATUTORY PERIOD OF RESPONSE | MAIL DATE | DELIVERY MODE |
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3 MONTHS

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

# Office Action Summary

Application No.

09/538,550

Applicant(s)

WALKER, ANDREW

Examiner

Michael W. Talbot

Art Unit

3722

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 16 November 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 6-15 is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 June 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 16 November 2006 has been entered.

### ***Priority***

2. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in the United Kingdom on 31 March 1999. It is noted, however, that applicant has not filed a certified copy of the 9907463.5 application as required by 35 U.S.C. 119(b).

### ***Claim Objections***

3. Claims 1 and 6 are objected to because of the following informalities:

Claim 1, lines 15-16, the character reference "conical actuator" should be changed so as to read --conical jaw actuator--.

Claim 6, line 11, the phrase "is non-rotational" should be inserted between the phrase "the jaw actuator" and "in a direction along the axis" so as to read --the jaw actuator is non-rotational in a direction along the axis-- so as to remain consistent with the amendments made to claim 1.

Claim 6, line 11, the word "which" should be inserted between "the cylindrical member" and "causes" so as to read --the cylindrical member which causes-- so as to remain consistent with the amendments made to claim 1.

Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1 and 3-5 are rejected under 35 U.S.C. 102(b) as being anticipated by GB 2199776. GB 2199776 shows in Figures 1-3 a chuck comprising a cylindrical member (10) having a central axial bore (12) and a plurality of further bores (14) slanted with respect to the axis of the cylindrical member, a plurality of jaws (16) associated with a respective one of the further bores and moveable there within, and a jaw actuator (40) having a plurality of slots (42) coupled with each of the plurality of jaws (via 44) for moving the jaws within their respective further bores wherein movement of jaw actuator in a direction along the axis of the cylindrical member causes concomitant movement of the jaws within their respective slots in a radial direction with respect to the axis of the cylindrical member (page 6, line 16 through page 7, line 8). GB 2199776 shows the chuck characterized in that the cylindrical member, the plurality of jaws and the conical actuator do not rotate relative to one another to enable transitional movement along the axis (page 6, line 16-23). GB 2199776 shows the jaws radially converge or diverge within the central axial bore of the cylindrical member (Figs. 1,2) and wherein the converging jaws meet each other beyond the confines of the cylindrical member (Fig. 1). GB 2199776 shows the converging movement of the jaws is concomitant with radial movement of each jaw within its respective slot.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schliep '732 in view of Thomas '006. Schliep '732 shows in Figures 1-5 a chuck comprising a cylindrical member (10), including a head (12) and a shaft (14), having a central axial bore (18) and a plurality of further bores (34) slanted with respect to the axis of the cylindrical member (col. 3, lines 36-41), a plurality of jaws (32) associated with a respective one of the further bores and moveable there within, and a jaw actuator (46) having a plurality of slots (56) coupled with each of the plurality of jaws (via 50,54) for moving the jaws within their respective further bores wherein movement of jaw actuator in a direction along the axis of the cylindrical member (col. 3, line 59-68) causes concomitant movement of the jaws within their respective slots in a radial direction with respect to the axis of the cylindrical member (col. 4, lines 1-14 and 54-68). Schliep '732 shows the chuck characterized in that the cylindrical member, the plurality of jaws and the conical actuator do not rotate relative to one another to enable transitional movement along the axis (jaw actuator (46) is carried by the adjustable nut (40) through a tongue (48) and groove (44) connection allowing the jaw actuator to move/translate without rotation). Schliep '732 shows the jaw actuator being concentrically mounted about the cylindrical member. Schliep '732 shows the jaws radially converge or diverge within the central axial bore of the cylindrical member (Fig. 3) and wherein the converging jaws meet each other beyond the confines of the cylindrical member (Fig. 5). Schliep '732 shows the converging movement of the jaws is concomitant with radial movement of each jaw within its respective slot (col. 4, lines 1-14).

Schliep '732 lacks the jaw actuator having a conical shaped flange. Thomas '006 shows in Figures 1 and 5 a jaw actuator (22) having a conical flange (23). In view of the teaching of

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Thomas '006, it would have been obvious to one of ordinary skill in the art to modify the jaw actuator of Schliep '732 to include a conical shaped flange as taught by Thomas '006 to provide a more compact design and to limit wear between the jaw actuator and the jaw connection pins by reducing friction and heat generation.

8. In the alternative, if it is argued, Schliep '732 does not disclose expressly that the jaw actuator is conical in shape. Instead, Schliep '732 is silent to the shape of the jaw actuator, although the figures indicate a plane shape. At the time of the invention was made, it would have been an obvious matter of design choice to a person of ordinary skill in the art to select "the jaw actuator having a conical shape" because Applicant has not disclosed that the "conical shape" provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected the chuck of Schliep '732, and Applicant's chuck to perform equally well with either the "jaw actuator having a plane shape" taught by Schliep '732 or the claimed "jaw actuator having a conical shape" because both constructions would provide the jaws with a direct link so as to move the jaws within the respective further bores while permitting radial movement within the respective slots of the jaw actuator regardless of the shape.

Furthermore, Applicant does not provide any criticality or unexpected results for the "jaw actuator having a conical shape" as recited in claim 1.

***Allowable Subject Matter***

9. The following is a statement of reasons for the indication of allowable subject matter:

Claims 6-15 are allowed.

Claim 6 is the sole independent claim.

Regarding claim 6, the prior art of record fails to anticipate or make obvious a chuck having (1) "a thrust plate non-rotatable relative to the cylindrical member during the movement",

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solely or in combination, with a chuck having a cylindrical member having a central axial bore and a plurality of slanted bores with respect to the longitudinal axis, a plurality of jaws moveable within the plurality of slanted bores, a conical jaw actuator coupled to the jaws via slots wherein movement of the jaw actuator is non-rotational in a direction along the axis which causes concomitant movement of the jaws in a radial direction, and a thrust plate coupled to the jaw actuator and non-rotatably movable on the cylindrical member along the longitudinal axis in order to apply movement force to the jaw actuator .

Schliep '732 is the closest art of record.

Schliep '732 shows in Figures 1-5 a chuck comprising a cylindrical member (10), including a head (12) and a shaft (14), having a central axial bore (18) and a plurality of further bores (34) slanted with respect to the axis of the cylindrical member (col. 3, lines 36-41), a plurality of jaws (32) associated with a respective one of the further bores and moveable there within, a jaw actuator (46) having a plurality of slots (56) coupled with each of the plurality of jaws (via 50,54) for moving the jaws within their respective further bores wherein movement of jaw actuator in a direction along the axis of the cylindrical member (col. 3, line 59-68) causes concomitant movement of the jaws within their respective slots in a radial direction with respect to the axis of the cylindrical member (col. 4, lines 1-14 and 54-68), and a thrust plate (40) coupled to the jaw actuator (via tongue 48 and groove 44 connection) moveable along a longitudinal axis to apply movement force to the jaw actuator. Schliep '732 shows the chuck characterized in that the cylindrical member, the plurality of jaws and the conical actuator do not rotate relative to one another to enable transitional movement along the axis (jaw actuator (46) is carried by the adjustable nut (40) through a tongue (48) and groove (44) connection allowing the jaw actuator to move/translate without rotation). Schliep '732 shows the jaw actuator being concentrically mounted about the cylindrical member. Schliep '732 shows the jaws radially

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converge or diverge within the central axial bore of the cylindrical member (Fig. 3) and wherein the converging jaws meet each other beyond the confines of the cylindrical member (Fig. 5). Schliep '732 shows the converging movement of the jaws is concomitant with radial movement of each jaw within its respective slot (col. 4, lines 1-14).

Schliep '732 lacks a chuck having (1) "a thrust plate non-rotatable relative to the cylindrical member during the movement".

Although it is well known to have a thrust plate coupled to the jaw actuator and being moveable on the cylindrical member along a longitudinal axis to apply movement force to the jaw actuator, there is no teaching in the prior art of record that would, reasonably and absent impermissible hindsight, motivate one having ordinary skill in the art to so modify the teachings of Schliep '732, noting that in Schliep '732, the thrust plate is rotationally moveable on the cylindrical member along a longitudinal axis to apply movement force to the jaw actuator. Thus, for at least the foregoing reasons, the prior art of record neither anticipates nor rendered obvious the present invention as set forth in independent claim 6.

#### ***Response to Arguments***

10. Applicant's arguments, see page 6, filed 16 November 2006, with respect to claims 1 and 3-5 being anticipated by Thomas '006 have been fully considered and are persuasive due to the fact that the conical jaw actuator (22) does in fact rotate relative to the cylindrical member (11) as taught in col. 2, lines 27-47. Therefore, the rejection under 35 U.S.C. 102(b) of claims 1 and 3-5 has been withdrawn.

11. Applicant's arguments filed 16 November 2006 have been fully considered but they are not persuasive.

Examiner respectfully disagrees with Applicant's assertion with respect to GB 2199776 that the collar (40) rotatably moves along the threads 26 to move the jaw 16. Applicant is



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directed to page 6, lines 1-23 where GB 2199776 clearly indicates that the jaw carrier (40), identified by the Examiner as the jaw actuator element, is held against rotation by its engagement with the jaws (page 6, lines 21-23).

**Conclusion**

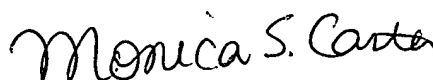
12. Any inquiry concerning the content of this communication from the examiner should be directed to Michael W. Talbot, whose telephone number is 571-272-4481. The examiner's office hours are typically 8:30am until 5:00pm, Monday through Friday. The examiner's supervisor, Mrs. Monica S. Carter, may be reached at 571-272-4475.

In order to reduce pendency and avoid potential delays, group 3720 is encouraging FAXing of responses to Office Actions directly into the Group at FAX number 571-273-8300. This practice may be used for filing papers not requiring a fee. It may also be used for filing papers, which require a fee, by applicants who authorize charges to a USPTO deposit account. Please identify Examiner Michael W. Talbot of Art Unit 3722 at the top of your cover sheet.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



MWT  
Examiner  
21 March 2007



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SUPERVISORY PATENT EXAMINER